



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,952	08/22/2003	Georg Stoppelmann	112843-061	2987
7590	09/26/2005		EXAMINER	
Bell, Boyd & Lloyd LLC P.O. Box 1135 Chicago, IL 60690-1135			NILAND, PATRICK DENNIS	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/646,952	STOPPELMANN ET AL.	
	Examiner	Art Unit	
	Patrick D. Niland	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-35 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/04</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1714

1. Claims 1-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The term "high viscous" in claims 1-35 is a relative term which renders the claim indefinite. The term "high viscous" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

B. It is unclear what is meant by "typical mineral filler materials". Nanofillers are now "typical". One cannot therefore assess the scope of what "30% higher than..." means in the instant claims.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6359052 Trexler, Jr. et al..

Trexler discloses the instantly claimed inventions with the exception of being silent regarding the amount of impact modifier and fiber. See the entire document. The burden is on the applicant to show that no "typical mineral filler" exists which would not give the instantly claimed difference in melt strength. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed amounts of the fiber and

impact modifier in the nanocomposites of the patentee because these additives are broadly disclosed at column 11, lines 45-48, it is within the ability of the ordinary skilled artisan to choose the amounts of these fillers based on the desired properties each filler is known to contribute to the final composition in proportion to its amount based on the fact that these are said to be well known additives and the silence of the patentee with regard to choosing amounts of these well known additives. In other words, the amounts of the instant claims are expected to contribute only predictable properties to the final composite. The amount of nano filler is met at column 7, lines 35-40.

4. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6548587 Bagrodia et al..

Bagrodia discloses the instantly claimed inventions with the exception of being silent regarding the amount of impact modifier and fiber. See the entire document. The burden is on the applicant to show that no “typical mineral filler” exists which would not give the instantly claimed difference in melt strength. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed amounts of the fiber and impact modifier in the nanocomposites of the patentee because these additives are broadly disclosed at column 12, lines 41-42, it is within the ability of the ordinary skilled artisan to choose the amounts of these fillers/additives based on the desired properties each filler is known to contribute to the final composition in proportion to its amount based on the fact that these are said to be well known additives and the silence of the patentee with regard to choosing amounts of these well known additives. In other words, the amounts of the instant claims are expected to

contribute only predictable properties to the final composite. See column 12, lines 36-52 and column 22, lines 43-51. The amount of nano filler is met at column 22, lines 60-65.

5. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6337046 Bagrodia et al..

Bagrodia discloses the instantly claimed inventions with the exception of being silent regarding the amount of impact modifier and fiber. See the entire document. The burden is on the applicant to show that no “typical mineral filler” exists which would not give the instantly claimed difference in melt strength. See column 7, lines 51-60, which shows that increased melt strength is expected from using the nanofiller. The viscoelasticity of impact modifiers and the strength improvements known from fibers would have also been expected to lead to an improvement of this property. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the instantly claimed amounts of the fiber and impact modifier in the nanocomposites of the patentee because these additives are broadly disclosed at column 7, lines 30-32, it is within the ability of the ordinary skilled artisan to choose the amounts of these fillers/additives based on the desired properties each filler is known to contribute to the final composition in proportion to its amount based on the fact that these are said to be well known additives and the silence of the patentee with regard to choosing amounts of these well known additives. In other words, the amounts of the instant claims are expected to contribute only predictable properties to the final composite. The amount of nano filler is met at column 3, lines 5-10.

Art Unit: 1714

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick D. Niland
Primary Examiner
Art Unit 1714